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10/519,510	09/02/2005	Stephan Hase	101215-175	9230

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EXAMINER

JANAKIRAMAN, NITHYA

ART UNIT	PAPER NUMBER
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2123

MAIL DATE	DELIVERY MODE
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08/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,510

Applicant(s)

HASE ET AL.

Examiner

Nithya Janakiraman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 6-9, 11-15, 17-19 and 22-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6-9, 11-15, 17-19 and 22-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the submission filed on 6/7/2007. Claims 2-4, 6-9, 11-15, 17-19, and 22-32 are presented for examination.

Claim Objections

1. Claim 9 is objected to for the following informality: claim 9 recites "an significant equipment feature", and should be amended to recite "a significant equipment feature".
2. Claims 15 and 17 are objected to under 37 CFR 1.121 for the following informalities: improper amendments. Claim 15 is missing the word 'data' following the phrase "...using data obtained". Claim 17 lacks a crossed-out '16', and '29' is not underlined.
3. Claims 18 and 19 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims) to place the claims in proper dependent form, or rewrite the claims in independent form. Although claims 18 and 19 refer back to a previously recited claim, and thus appear to be in dependent form, the preambles of claims 18 and 19 clearly set forth a separate and distinct invention from the previous claims, and therefore must be regarded as independent claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 6 recites the limitation "the updated demand numbers" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim. Claim 22, from which claim 6 depends, recites "the updated demand quantities". Claim 8 is rejected by virtue of its dependency.

6. Regarding claim 9, the term "an significant equipment feature" does not accurately and distinctly claim the subject matter. The term "significant" is a relative term, which renders the claim indefinite. The term "significant" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 2-4, 6-9, 11-15, 17-19, and 22-32 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 94/01826, Brown (hereinafter Brown).

8. Regarding claim 2, Brown discloses:

Method according to claim 22, characterized in that the data sets used in the automatic adjustment of the demand quantities in step b) include restrictions with respect to at least one of the production sites and the suppliers (page 9, lines 19-28).

9. Regarding claim 3, Brown discloses:

Method according to claim 22, characterized in that the demand quantities in step a) are determined by defining a first demand forecast for a first forecast time period, determining a second demand forecast for a second forecast time period by using stochastic processes derived from the first forecast, and determining the demand quantities according to predefined algorithms which evaluate at least one of the first and the second demand forecasts (page 6, lines 11-24).

10. Regarding claim 4, Brown discloses:

Method according to claim 22, characterized in that the automatic adjustment in step b) includes a correction of the demand quantities so as to match the demand quantities to at least one of the manufacturing capacities and the supplier capacities (page 9, lines 19-23).

11. Regarding claim 6, Brown discloses:

Method according to claim 22, characterized in that the generating of the updated demand numbers for the predefined time period includes evaluating daily assumptions (page 16, lines 5-10).

12. Regarding claim 7, Brown discloses:

Method according to claim 22, characterized in that the automatic allocation of the portion of the updated demand quantities to the production sites includes compiling daily schedules for the production sites (page 10, lines 17-18).

13. Regarding claim 8, Brown discloses:

Method according to claim 6, characterized in that the automatic allocation of the portion of the updated demand quantities to the production sites includes breaking up the products specified in the daily assumptions into their modules (Figure 1, **FG2**).

14. Regarding claim 9, Brown discloses:

Method according to claim 22, characterized in that the updated demand quantities include information about an significant equipment feature of the products (page 10, lines 17-27, "inventory parts").

15. Regarding claim 11, Brown discloses:

Method according to claim 22, characterized in that, in step (d), the restrictions of the productions sites include at least one of capacity limitations, work schedule models, and permanent staffing (page 10, line 22, "overloaded").

16. Regarding claim 12, Brown discloses:

Method according to claim 1, characterized in that dealers include domestic market dealers and importers (page 2, lines 5-9).

17. Regarding claim 13, Brown discloses:

Method according to claim 22, characterized in that the distribution channels are subdivided into distribution sub-channels (page 3, lines 17-24).

18. Regarding claim 14, Brown discloses:

Method according to claim 1, characterized in that the generating of the updated demand quantities is based on at least one of quantitative evaluations of process designs, assessments of

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strategies, times for freezing orders, delivery times, delivery reliability, utilization of transportation means and costs (page 9, lines 19-28).

19. Regarding claim 15, Brown discloses:

Method according to claims 22, characterized in that in step (c), the evaluating is performed using data obtained from databases of real systems (page 9, lines 19-28).

20. Regarding claim 17, Brown discloses:

Simulation system according to claim 29, characterized in that the simulation system includes interfaces to databases of real systems (page 9, lines 19-28).

21. Regarding claim 18, Brown discloses:

Computer program product with a computer-readable storage medium for storing a program which enables a computer, after the program is loaded into the memory of the computer, to execute the process for simulating order processing processes for producing the product according to claim 22 (page 3, lines 17-24).

22. Regarding claim 19, Brown discloses:

Computer-readable storage medium for storing a program which enables a computer, after the program is loaded into the memory of the computer, to execute a process for simulating order processing processes for producing the product according to claim 22 (page 3, lines 17-24).

23. Regarding claim 22, Brown discloses:

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Method for simulating order processing processes used for producing a product available in a plurality of versions or a plurality of selectable features (page 3, lines 17-20) comprising the steps:

- a) entering into a data processing device demand quantities for at least one class of the product for at least one predefined period of time (page 6, line 18 “orders”, line 34 “setup time”);
- b) automatically adjusting, through use of a computer program installed on a data processing device, the demand quantities with predefined datasets representative of at least one of manufacturing capacities and supplier capacities, and determining at least one of approved firm order allocations and approved modular allocations (page 9, lines 19-28; page 10, lines 17-27);
- c) generating updated demand quantities for the predefined time period by evaluating at least one of the approved firm order allocations, the approved modular allocations and simulated buyer orders newly received by dealers (page 16, lines 1-10; Figure 8, 830);
- d) adjusting the updated demand quantities with respect to restrictions of at least one of production sites and suppliers, and automatically allocating at least a portion of the updated demand quantities to the production sites (page 16, lines 1-10);
- e) simulating at least one of production and supply for the production based on the allocation in step (d) (page 3, lines 17-20);
- f) automatically determining distribution channels and simulating distribution of finished products from the production sites to delivery locations (page 3, lines 17-28);
- g) generating assumption data representative of a simulated matching of the updated demand quantities with at least one of customer orders and dealer specifications of the finished products (Figure 4); and

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h) outputting the assumption data to the production sites (page 5, line 2, lines 10-13; page 6, lines 17-20; necessarily, data would be sent to the manufacturing facility in order to create **FG1** and **FG2**).

24. Regarding claim 23, Brown discloses:

Method according to claim 22, where the product is a motor vehicle (page 3, inherently the materials can make up any product, including motor vehicles).

25. Regarding claim 24, Brown discloses:

Method according to claim 22, where the assumption data comprises freeze point data, where a freeze point is a latest possible date when a change to at least one of the customer orders and the dealer specifications is insertable in a production process (page 20, lines 1-17).

26. Regarding claim 25, Brown discloses:

Method according to claim 22, wherein step (a) further comprises defining preliminary demand quantities for a first forecast time period (page 6, lines 14-18); wherein step (c) further comprises generating, by simulation, dealer orders for a second forecast time period and generating the updated demand quantities for the second demand time period by evaluating the preliminary demand quantities and the dealer orders (page 6, lines 11-24); and wherein step (d) further comprises adjusting the updated demand quantities for

the second demand time period to capacities of at least one of the production sites and the suppliers (page 10).

27. Regarding claim 26, Brown discloses:

Method according to claim 25, wherein the first forecast time period is a year of sales, the second forecast time period is three months and the predefined time period is a delivery week (page 6, lines 11-16; inherently, the schedules can be any length).

28. Regarding claim 27, Brown discloses:

Method according to claim 14, wherein the assessments of strategies include managing disruptions (page 10, lines 17-34).

29. Regarding claim 28, Brown discloses:

Method according to claim 15, wherein the databases of real systems include databases of at least one of the dealers and production sites (page 9, lines 19-30).

30. Regarding claim 29, Brown discloses:

A simulation system for simulating order processing processes used for producing a product available in a plurality of versions or a plurality of selectable features (page 3, lines 17-20), the system comprising:

a forecast module, a production module, a distribution module and an assumption module under control of a computer program implemented on a computer system (page 4, lines 1-32),

wherein the forecast module is for:

receiving demand quantities for at least one class of the product for at least one predefined period of time (page 6, line 18, “orders”, line 34, “setup time”);

automatically adjusting the demand quantities with predefined datasets representative of at least one of manufacturing capacities and supplier capacities, and determining at least one of approved firm order allocations and approved modular allocations (page 9, lines 19-28; page 10, lines 17-27);

generating updated demand quantities for the predefined time period by evaluating at least one of the approved firm order allocations, the approved modular allocations and simulated buyer orders newly received by dealers (page 16, lines 1-10; Figure 8, 830); and

adjusting the updated demand quantities with respect to restrictions of at least one of production sites and suppliers, and automatically allocating at least a portion of the updated demand quantities to the production sites (page 16, lines 1-10);

wherein the production module is for simulating at least one of production and supply for the production based on the allocating performed in the forecast module (page 3, lines 19-20);

wherein the distribution module is for automatically determining distribution channels and simulating distribution of finished products from the production sites to delivery locations (page 31, lines 7-12); and

wherein the assumption module is for

generating assumption data representative of a simulated matching of the updated demand quantities with at least one of customer orders and dealer specifications of the finished products (Figure 4); and

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outputting the assumption data to the production sites (page 5, line 2, lines 10-13; page 6, lines 17-20; necessarily, data would be sent to the manufacturing facility in order to create **FG1** and **FG2**).

31. Regarding claim 30, Brown discloses:

Simulation system according to claim 17, wherein the databases of real systems includes databases of at least one of the dealers and production sites (page 9, lines 19-30).

32. Regarding claim 31, Brown discloses:

The computer program product of claim 18, wherein the process for simulating order processing processes is for producing a motor vehicle (page 3, lines 17-24, inherently, a motor vehicle is a possible product in Brown).

33. Regarding claim 32, Brown discloses:

The computer-readable storage medium of claim 19, wherein the process for simulating order processing processes is for producing a motor vehicle (page 3, lines 17-24, inherently, a motor vehicle is a possible product in Brown).

Response to Amendments-35 §U.S.C 112

34. Cancellations of claims 1, 5, and 16 are acknowledged. Applicant's amendments with respect to claims 3, 13, 18 and 19 have been considered and rejections under 35 U.S.C §112 have been withdrawn. However, claims 6 and 9 remain indefinite.

35. Claim 6 continues to recite the limitation "demand numbers" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

36. Claim 9 continues to recite the term "an significant equipment feature" which does not accurately and distinctly claim the subject matter. The term "significant" is a relative term, which renders the claim indefinite. The term "significant" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

Response to Amendments-35 §U.S.C 101

37. Applicant's cancellation of claim 1 has been acknowledged. The rejection under 35 §U.S.C 101 has been withdrawn.

Response to Arguments-35 §U.S.C 102

38. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection, necessitated by Applicant's amendments.

Conclusion

39. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

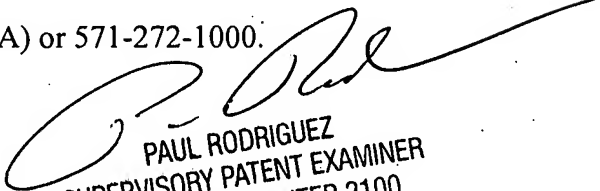
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nithya Janakiraman whose telephone number is 571-270-1003. The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571)272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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